

## PATENT ABSTRACTS OF JAPAN

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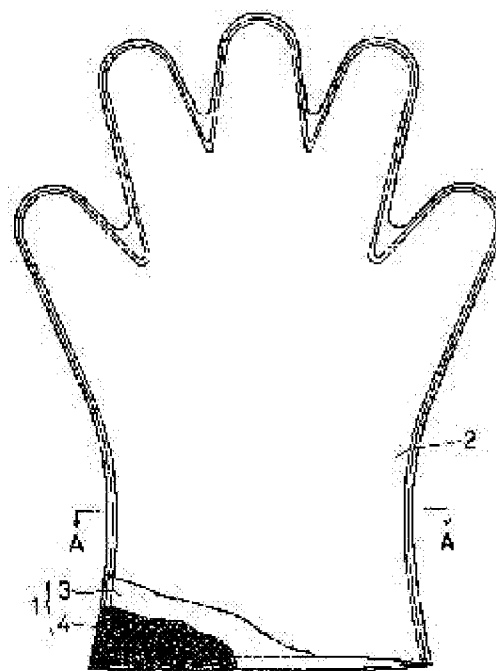
(72)Inventor : **MATSUDA KAZUTO**

### (54) **SIMPLY MADE GLOVES**

#### (57)Abstract:

**PROBLEM TO BE SOLVED:** To obtain the subject glove that is made of flexible plastic film and has an antimicrobially treated nonwoven fabric piece fixed to its palm surface and is easy to use (put on) and causes no contamination of other things due to sterilization.

**SOLUTION:** This glove is made of two sheets of flexible plastic film 2, 3 (as polypropylene, polyethylene, vinyl chloride resins, nylon or the like) and an antimicrobially treated nonwoven fabric cloth 4 is fixed to the palm face of the glove. The contours of the left and right gloves may be made symmetrical. In addition, the film 2 on the back side of the hand is made preferably air permeable but moist-impermeable, in addition, the plastic films 2, 3 are preferably embossed. The nonwoven fabric 4 is prepared by treating nonwoven fabric made of plastic fibers with an antimicrobial agent. The antimicrobial agent may be a zeolite supporting an antimicrobial metal as silver or mad be a chemical as hinokitiol.



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**CLAIMS**

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[Claim(s)]

[Claim 1]a palm of a glove which consists of an elastic plastic film (2, 3) -- a simple glove attaching to a near field a nonwoven fabric (4) by which the antibacterial treatment was carried out.

[Claim 2]The simple glove according to claim 1, wherein contour shape of a glove is a paired-right-and-left elephant.

[Claim 3]The simple glove according to claim 1 or 2 although a plastic film (2) by the side of the back of a hand lets air pass, wherein water is what has the waterproofness which it does not let pass.

[Claim 4]The simple glove according to claim 1, 2, or 3, wherein a plastic film (2, 3) carries out embossing.

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## DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

[Field of the Invention]This invention relates to the simple glove of what is called throwing away used in the work site where strict hygiene supervision, such as a medical institution and a prepared food factory, is demanded.

[0002]

[Description of the Prior Art]In medical institutions, such as a hospital, the hospital infection by bacteria, such as MRSA, is becoming a problem. At a prepared food factory, the food poisoning by Escherichia coli, a salmonella, etc. is becoming a problem.

[0003]Therefore, it works carrying out the glove which consists of a disposable plastic film, and the bacteria adhering to a hand have been kept from moving to a patient or the foodstuffs to cook.

[0004]However, the glove of throwing away which consists of the conventional plastic film had the problem that a glove is torn easily, and the problem of being easy to slide on a hand.

[0005]Then, although it was possible to attach a nonwoven fabric to the field by the side of common [ of the hand of a glove ], when bacteria adhered to the nonwoven fabric, there was a problem that contamination might be expanded on the contrary.

[0006]

[Problem(s) to be Solved by the Invention]So, in this invention, the above-mentioned problem is solved, and it is easy to use, and let it be a technical problem to provide the simple glove which moreover does not pollute other things bacteria.

[0007]

[Means for Solving the Problem]Therefore, in this invention, it was considered as a simple glove which attached the nonwoven fabric 4 by which the antibacterial treatment was carried out to a field by the side of common [ of a hand of a glove which consists of the elastic plastic films 2 and 3 ].

[0008]Since the nonwoven fabric 4 is attached to a field by the side of common [ of a hand of a glove ] if it has the above-mentioned composition, it is hard to be torn and, moreover, hard to slide on a hand. Since antibacterial treatment has been carried out to the nonwoven fabric 4, even if bacteria adhere to the nonwoven fabric 4, it does not pollute to other things.

[0009]If a glove is made into a thing of a paired-right-and-left elephant in addition to composition of the invention according to claim 1, it will become unnecessary to make an object for right hands, and for left hands two kinds like the invention according to claim 2.

[0010]Like the invention according to claim 3, in addition to composition of the invention according to claim 1 or 2, air lets the plastic film 2 by the side of the back of a hand pass, but if water shall have the waterproofness which it does not let pass, even if it is using it for a long time, a hand will not be steamed.

[0011]Like the invention according to claim 4, if embossing should be carried out for the plastic films 2 and 3 in addition to composition of the invention according to claim 1, 2, or 3, the plastic films 2

and 3 will not stick to a hand.

[0012]

[Embodiment of the Invention]drawing 1

shows the example of the simple glove of this invention -- it is a notch front view in part, and drawing 2 is an A-A line sectional view of drawing 1. Hereafter, it explains based on these figures.

[0013]The simple glove of this invention piles up the sheets 1 and 2 of two sheets, welds them along with the shape of a palm with an ultrasonic wave or heating, and is clipped and formed along with a welding after that.

[0014]The sheet 1 by the side of common [ of a hand ] sticks the nonwoven fabric 4 on the elastic plastic film 3, and although the means of attachment has preferred hot welding, it may twist it in adhesives.

[0015]The sheet 2 by the side of the back of a hand consists of a plastic film homogeneous as the sheet 1 by the side of common [ of said hand ].

[0016]It can choose from polypropylene, polyethylene, VCM/PVC, nylon, etc. as construction material of said plastic films 2 and 3.

[0017]Although the sheet 2 by the side of the back of a hand lets air pass, it can also choose the sheet in which that water shall have the waterproofness which it does not let pass ended the desirable therefore detailed hole.

[0018]It is preferred to choose as said plastic films 2 and 3 what carried out embossing, in order to make it not stick to a hand by sweat etc.

[0019]The antibacterial treatment of the nonwoven fabric 4 is carried out to the nonwoven fabric which consists of plastic fibers. As an antimicrobial agent made to adhere to the nonwoven fabric 4, zeolite could be made to support antibacterial metals, such as silver, copper, and zinc, and drugs, such as hinokitiol, a ginger extract, a Japanese horseradish extract, chitosan, and ORGANO silicone quarternary ammonium salt, may be used.

[0020]Other drugs, such as not only an antimicrobial agent but a deodorizer, can also be made to adhere to the nonwoven fabric 4.

[0021]As for the contour shape of a glove, as shown in drawing 1, it is preferred to consider it as the shape of a paired-right-and-left elephant.

[0022]Thus, since it is not necessary to make the object for right hands, and for left hands two kinds if it is considered as the shape of a paired-right-and-left elephant, the number of metallic molds is one sufficient, and a manufacturing cost becomes cheap.

[0023]

[Effect of the Invention]It not only becomes a strong thing which cannot be torn easily, but [ since the nonwoven fabric 4 is attached to the field by the side of common / of a hand / , ] in the simple glove of this invention, since it is hard to slide, it is easy to use. Since antibacterial treatment has been carried out to said nonwoven fabric 4, even if bacteria adhere to the nonwoven fabric 4, it does not pollute to other things.

[0024]Since it will become unnecessary to make the object for right hands, and for left hands two kinds like the invention according to claim 2 if a glove is made into the thing of a paired-right-and-left elephant in addition to the composition of the invention according to claim 1, a manufacturing cost becomes cheap.

[0025]Like the invention according to claim 3, in addition to the composition of the invention according to claim 1 or 2, air lets the plastic film 2 by the side of the back of a hand pass, but if water shall have the waterproofness which it does not let pass, even if it is using it for a long time, a hand will not be

steamed, and it will become a good thing of usage \*\*\*\*\* which displeasure does not carry out.

[0026]Like the invention according to claim 4, if embossing of the plastic films 2 and 3 should be carried out in addition to the composition of the invention according to claim 1, 2, or 3, since the plastic films 2 and 3 stop sticking to a hand, displeasure does not carry out, but it will use further and

will become a good thing of \*\*\*\*\*.

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**TECHNICAL FIELD**

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**PRIOR ART**

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**EFFECT OF THE INVENTION**

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**TECHNICAL PROBLEM**

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[Problem(s) to be Solved by the Invention]So, in this invention, the above-mentioned problem is solved, and it is easy to use, and let it be a technical problem to provide the simple glove which moreover does not pollute other things bacteria.

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**MEANS**

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[Embodiment of the Invention]drawing 1 shows the example of the simple glove of this invention -- it is a notch front view in part, and drawing 2 is an A-A line sectional view of drawing 1. Hereafter, it explains based on these figures.

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**DESCRIPTION OF DRAWINGS**

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[Brief Description of the Drawings]

[Drawing 1]It is a partial notch front view of the simple glove of this invention.

[Drawing 2]It is an A-A line sectional view of drawing 1.

[Description of Notations]

- 1 The sheet by the side of common [ of a hand ]
- 2 Plastic film
- 3 Plastic film
- 4 Nonwoven fabric

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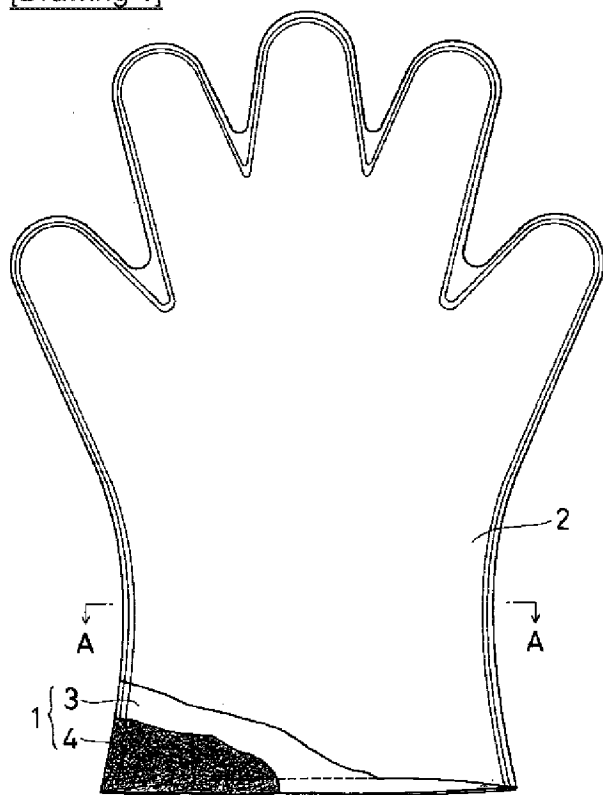
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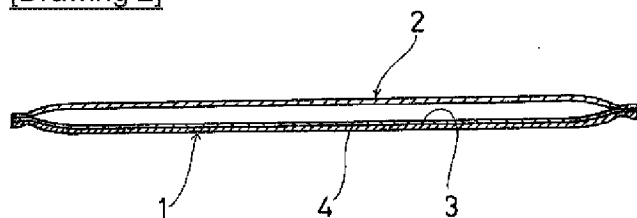
**DRAWINGS**

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[Drawing 1]



[Drawing 2]



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[Translation done.]